

recognized the need for data on trunk blockage.<sup>109</sup> Although BellSouth has provided some trunk blockage information, it has not submitted any other network performance data with its application.

**M. Additional Performance Data Inadequacies**

57. In addition to those performance measurements that are missing from BellSouth's application, there are other measurements for which the data provided by BellSouth is inadequate to establish that BellSouth is providing nondiscriminatory performance for CLECs.

**1. Systems Availability And Pre-Ordering Response Times**

58. The ability of CLECs to obtain prompt access to information regarding customer service records, address verification, service and feature availability, telephone number assignment and reservations, and due date scheduling during the pre-ordering process while the customer is on the line is absolutely critical to the ability of CLECs to compete effectively in the provision of local telephone services. For this reason, the Commission has repeatedly stressed the need for BOCs to provide CLECs with fast and reliable, nondiscriminatory access to pre-ordering operations support systems and databases.<sup>110</sup> To enable it to determine whether such nondiscriminatory access is being provided to CLECs, the

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<sup>109</sup> See *Bell Atlantic/NYNEX Order*, App. D, Measures 19 & 20.

<sup>110</sup> See, e.g., *Local Competition Order*, ¶ 523; *Ameritech Michigan Order*, ¶¶ 130, 140.

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Commission has required BOCs to monitor and report data regarding the availability of their OSS systems and average response times for providing access to each of the principal types of pre-ordering information to both CLECs and their own local retail operations.<sup>111</sup>

59. In support of BellSouth's earlier Section 271 application for South Carolina, Mr. Stacy provided some limited data regarding OSS "system availability" and "response time" for certain pre-ordering functions in his affidavit dealing with BellSouth's operations support systems.<sup>112</sup> At that time, however, Mr. Stacy made no mention of that data in his affidavit dealing with performance measurements, and there was no indication that BellSouth planned to provide any of these measures on an on-going basis. Now BellSouth states that these measures will be made a part of BellSouth's "permanent" set of measurements.<sup>113</sup>

60. While that commitment by BellSouth cures one defect, it does not cure the other deficiencies in this data. BellSouth's data on "system availability," for example, is primarily a list of the scheduled hours of availability for certain of BellSouth's OSS interfaces

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<sup>111</sup> See, e.g., *Bell Atlantic/NYNEX Order*, App. D, Measure 2 (percentage of time each OSS interface or system is actually available in comparison to scheduled availability), Measure 1 (average response time per transaction for access to customer service records, due date availability, address verification, feature and function availability, and telephone number selection and reservation).

<sup>112</sup> See Stacy S.C. OSS Aff., ¶¶ 108-109 & Exs. WNS-36, WNS-37.

<sup>113</sup> See Stacy PM Aff., ¶¶ 32-34.

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and "key" legacy systems, and what little data is provided on actual availability for August and September is presented wholly without any supporting information about what was measured or how the data was obtained.<sup>114</sup>

61. BellSouth's data on pre-ordering "response times" replaces data previously submitted by BellSouth with its South Carolina application. BellSouth explains that it has implemented a new methodology for measuring response times for the LENS interface that BellSouth offers to CLECs which it claims is "more consistent" with the manner in which it is measuring response times for its own Regional Negotiation System ("RNS"), which BellSouth uses for most types of residential orders.<sup>115</sup> Although BellSouth states that its new LENS data was collected by means of "Navigator middleware routines" from "late September through October 10,"<sup>116</sup> no further information is provided regarding how BellSouth measured the response times reported for the various legacy systems and databases involved.<sup>117</sup>

62. What is clear, however, is that BellSouth has provided response time data for only three of the five principal pre-ordering functions -- address validation ("RSAG"),

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<sup>114</sup> See Stacy OSS Aff., ¶ 109 & Ex. WNS-36.

<sup>115</sup> See Stacy OSS Aff., ¶¶ 51, 110.

<sup>116</sup> Stacy OSS Aff., ¶ 110 & Ex. WNS-37.

<sup>117</sup> This problem is discussed in more detail in Part IV.C.1. of my affidavit dealing with the lack of clarity in the measurements reported by BellSouth.

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telephone number selection ("ATLAS"), and due date scheduling ("DSAP"). Although Mr. Stacy has acknowledged that "obtaining customer service records . . . is the pre-ordering function CLECs are most likely to use,"<sup>118</sup> he concedes that "[r]esponse time intervals were not provided for customer service record retrieval and product/service availability retrieval."<sup>119</sup> Nor does BellSouth provide any data regarding response times for BellSouth's other CLEC interfaces or its other retail systems, such as its Service Order Negotiation System ("SONG") and Direct Order Entry ("DOE") system. As a result, the Commission lacks the information required to find that BellSouth has met its burden of establishing that it is delivering nondiscriminatory access to BellSouth's systems to CLECs.<sup>120</sup>

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<sup>118</sup> Stacy S.C. OSS Reply Aff., filed November 14, 1997, in *Application by BellSouth Corp., et al. for Provision of In-Region, InterLATA Services in South Carolina*, CC Docket No. 97-121, ¶ 26.

<sup>119</sup> Stacy S.C. PM Reply Aff., filed November 14, 1997, in *Application by BellSouth Corp., et al. for Provision of In-Region, InterLATA Services in South Carolina*, CC Docket No. 97-121, ¶ 3.

<sup>120</sup> As discussed in the Affidavit of Jay Bradbury, there are also a number of serious deficiencies in BellSouth's LENS interface that are not reflected in BellSouth's access times data, including the fact that BellSouth's due date scheduling system ("DSAP") cannot be accessed at all by CLECs using LENS in the pre-ordering or inquiry mode, and the fact that LENS requires CLECs to repeat the address validation step with every pre-ordering transaction except access to customer service records.

2. **Order Flow Through**

63. In its *Ameritech Michigan Order*, the Commission reiterated the conclusion of its *Local Competition Order* that nondiscriminatory access requires fully electronic processing of CLEC orders where the BOC's own retail orders are processed electronically.<sup>121</sup> Moreover, based on the extensive factual record in that case, the Commission found that the manual processing of CLEC orders resulted in substantially slower and less efficient performance than the fully electronic "flow through" processing of orders by the BOC.<sup>122</sup> Accordingly, the Commission determined that it is "virtually impossible" for a BOC to provide equivalent performance for CLECs when CLEC orders are processed manually:

"Because it is virtually impossible for orders that are processed manually to be completed in the same time as orders that flow through electronically, it is difficult to see how equivalent access could exist when [the BOC] processes a significant number of orders from

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<sup>121</sup> See *Ameritech Michigan Order*, ¶ 137 ("For those functions that the BOC itself accesses electronically, the BOC must provide equivalent electronic access for competing carriers"); *Local Competition Order*, ¶ 523 ("an incumbent that provisions network resources electronically does not discharge its obligation under section 251(c)(3) by offering competing providers access that involves human intervention"); *Second Order on Reconsideration*, ¶ 9 ("to the extent that an incumbent LEC provides electronic pre-ordering, ordering, provisioning, maintenance and repair, or billing to itself, . . . the incumbent LEC must provide at least equivalent electronic access to requesting carriers").

<sup>122</sup> See *Ameritech Michigan Order*, ¶¶ 172-180, 188, 193-196.

competing carriers manually [when its retail operation processes essentially all of its orders electronically]."<sup>123</sup>

64. In light of its conclusions regarding the need for fully electronic processing of CLEC orders, the Commission determined that it needed comparative data on the percentage of orders handled by the BOC on a fully electronic or "flow through" basis with no manual intervention in order to determine whether nondiscriminatory performance is being provided to CLECs.<sup>124</sup> Similarly, in its *Bell Atlantic/NYNEX Order*, the Commission required the merged BOCs to monitor and report their percentage of flow through orders processed by their systems without manual intervention.<sup>125</sup>

65. BellSouth makes no pretense that its data on "order flow through" are sufficient to establish parity of performance for CLECs. Thus, BellSouth states that "until manual handling [of CLEC orders] is substantially reduced, . . . this measurement and its resulting output is not considered a fully developed, permanent measurement."<sup>126</sup>

66. BellSouth's reluctance to rely on its order flow through data may be explained by the fact that the data clearly show that parity is *not* being provided to CLECs.

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<sup>123</sup> *Id.*, ¶ 196.

<sup>124</sup> *See id.*, ¶ 212.

<sup>125</sup> *See Bell Atlantic/NYNEX Order*, App. D, Measure 7.

<sup>126</sup> Stacy PM Aff., ¶ 36.

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Thus, prior to any "adjustment" by BellSouth, BellSouth's flow through data show that the percentage of "eligible LSRs" (a term that BellSouth does not define) placed through electronic interfaces that were processed by BellSouth without manual intervention was only 25 percent in July, 34 percent in August, and 39 percent in September.<sup>127</sup> Although BellSouth provides no comparative data regarding the level of flow through processing for its own retail orders, it seems clear from Mr. Stacy's statement that BellSouth expects this level of manual processing of CLEC orders to be "substantially reduced"<sup>128</sup> that BellSouth's comparable level of flow through processing is substantially higher and that the flow through data for CLECs does not show parity of performance.

67. Mr. Stacy's attempt to avoid the obviously adverse, actual order flow through data by relying instead on so-called "adjusted flow thru" numbers, which he says are derived from some "BST analysis" of "SOER errors,"<sup>129</sup> must be rejected for the lack of any information about the manner in which BellSouth has adjusted its data. The arbitrary nature of Mr. Stacy's "adjustments" is shown by the fact that in testimony submitted in Georgia on October 22, 1997, Mr. Stacy testified that BellSouth's "SOER error analysis" showed that 45.5 percent of total SOER errors in September were attributable to CLECs, while in his

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<sup>127</sup> See Stacy OSS Aff., Ex. WNS-41.

<sup>128</sup> Stacy PM Aff., ¶ 36.

<sup>129</sup> See Stacy OSS Aff., ¶¶ 112-113 & Ex. WNS-41.

affidavit in this case he claims, without any explanation, that 87 percent -- almost twice as many -- were attributable to CLECs.<sup>130</sup> Moreover, even after BellSouth's "adjustments," its flow through rate for CLEC orders was only 57 percent in July, 91 percent in August, and 89 percent in September (or 67 percent using the September numbers filed in Georgia).<sup>131</sup>

**IV. THE PERFORMANCE DATA PROVIDED BY BELL SOUTH DOES NOT ESTABLISH THAT BELL SOUTH IS PROVIDING NONDISCRIMINATORY PERFORMANCE FOR CLECS.**

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68. In addition to the many gaps and other inadequacies in the performance data submitted by BellSouth, BellSouth's performance reports suffer from a number of further problems which preclude reliance on those reports as a means of establishing that BellSouth is providing nondiscriminatory performance for CLECs. In the few instances where BellSouth purports to provide comparative performance data, it has presented its data in ways which do not provide valid comparisons between BellSouth's performance for CLECs and its performance for itself. For other measures, BellSouth has failed to provide adequate information about how its measurements were made or about certain studies or analyses which it has used to "adjust" its actual performance data in order to make its performance look better.

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<sup>130</sup> Compare Stacy Ex. WNS-13, p. 3, filed October 22, 1997, in *Performance Measurements for Telecommunications Interconnection, Unbundling and Resale*, Docket No. 7892-U (Ga. Pub. Serv. Comm'n) (Attachment 15), with Stacy OSS Aff., Ex. WNS-41.

<sup>131</sup> See Stacy OSS Aff., Ex. WNS-41.

**A. BellSouth's Statistical Process Control Charts Do Not Establish That BellSouth Is Providing Nondiscriminatory Performance For CLECs.**

69. In the few instances where BellSouth provides actual data comparing its performance for CLECs with its performance for itself -- namely, the seven provisioning and maintenance measures -- BellSouth attempts to use "statistical process control" charts to create a "safe harbor" within which its conduct would be regarded as nondiscriminatory.<sup>132</sup> In fact, however, BellSouth's statistical process control charts do not establish that nondiscriminatory performance is being delivered to CLECs.<sup>133</sup>

70. For the seven measurements, BellSouth calculates its mean or average level of performance for its own operations for each of eight months and a standard deviation over the same eight month period.<sup>134</sup> These results are then used as a baseline for evaluating

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<sup>132</sup> See Stacy PM Aff., ¶¶ 20-21 & Ex. WNS-9 & WNS-9B.

<sup>133</sup> In prior testimony before state commissions, Mr. Stacy claimed that AT&T agreed to the use of statistical process control as a way to measure BellSouth's performance under the AT&T-BellSouth Agreement. That was not correct. As Mr Stacy now concedes, the use of statistical process control was adopted by BellSouth entirely "on its own initiative." Stacy PM Aff., ¶ 20.

<sup>134</sup> BellSouth does not explain the derivation of the numbers in its control charts in detail, but it appears that the "standard deviation" computed by BellSouth reflects simply the variability of the 8 reported monthly average results around the overall mean, rather than the variability of BellSouth's performance within each month. This is an important distinction. It is the variance of performance *within* each month, not the variability of the average results from month to month, that should be used both to develop statistical process control charts and to evaluate discrimination.

its performance for CLECs. BellSouth does this by calculating upper and lower "control limits," which it sets at three standard deviations above and below its own average performance. BellSouth's mean performance for itself and the upper and lower control limits are plotted on a control chart. BellSouth then superimposes on the same chart its mean monthly performance for each of the eight months both for CLECs and for itself. BellSouth contends that its control limits (that is, a six standard deviation envelope centered around the mean) define a range of performance that should be regarded as nondiscriminatory.<sup>135</sup>

71. BellSouth's statistical process control charts are inadequate either to identify discrimination against CLECs or to protect emerging competition in BellSouth's local markets. First, there is no generally recognized statistical theory or methodology for the application of statistical process control techniques to identify discrimination. Statistical process control is designed to improve the quality of a firm's performance by reducing variability in output. It is not designed to detect discrimination, and it is premised on the existence of a number of assumptions that have not been shown to be present here. Second, even if it could appropriately be applied to identify discrimination, BellSouth has so broadly defined its upper and lower control limits as to render them wholly inadequate to detect discriminatory performance by BellSouth. Notwithstanding the one-sided assumptions used by

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<sup>135</sup> See, e.g., Stacy PM Aff., ¶ 23 ("as long as the monthly performance is within the established upper and lower limits, there generally would not be any concern").

BellSouth in its statistical process control charts, however, those charts do not support BellSouth's claim that nondiscriminatory performance is being provided to CLECs. Quite the contrary, those charts actually demonstrate that BellSouth is *not* delivering equivalent performance to CLECs.

1. **Statistical Process Control Is Not Designed To Detect Discrimination.**

72. Statistical process control is intended to monitor, based on appropriate sampling techniques, whether a process that transforms inputs into outputs, such as a manufacturing operation, is operating within expected boundaries. Those expected boundaries or control limits are established on the basis of previously observed, historical averages and variations in performance. In order to provide meaningful results, the process being monitored must be "in control" or operating in a stable manner; the populations being sampled each month must be the same; and there must be no changes in the variability of performance from month to month.

73. There is no authority for applying statistical process control to the problem of determining whether or not BellSouth is discriminating against CLECs, and that methodology is unsuitable for several reasons. First, unlike the manufacturing quality control applications for which statistical process control was developed, the discrimination issue to be addressed here requires a comparison of two processes -- BellSouth's performance for itself and its performance for CLECs -- which may or may not be the same. Whether these two

processes are delivering the same level of performance is the question to be demonstrated. It cannot simply be assumed.

74. Second, statistical process control is designed to compare a firm's present performance to its past performance. For purposes of determining whether parity is being provided, on the other hand, the relevant comparison is between BellSouth's present performance for CLECs and its *present* performance for itself. Contrary to BellSouth's claims,<sup>136</sup> there is no need to deal with BellSouth's historical performance.

75. Third, statistical process control requires stability in the process being measured. Yet, as BellSouth's own charts confirm, BellSouth's performance for CLECs is not yet stable, but varies widely from month to month.<sup>137</sup> Moreover, BellSouth's statistical process control charts do not take into account at all the variance within each month of BellSouth's performance for CLECs. This is a significant omission because even when average performance is the same for two groups, a wider variance in performance can influence

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<sup>136</sup> See Stacy PM Aff., ¶ 20.

<sup>137</sup> See, e.g., Stacy PM Aff., Ex. WNS-9, pp. 1, 2, 4, 7, 8, 14, 15, 16, 21, 24, 27, 28 (charts for the percentage of provisioning appointments met (residential resale dispatch, residential resale non-dispatch, and business resale non-dispatch), percentage of maintenance appointments met (both business resale dispatch and business resale non-dispatch), the percentage of maintenance repeat troubles within 30 days (residential resale non-dispatch, business resale dispatch, and business resale non-dispatch), the percentage of provisioning troubles within 30 days (both residential resale dispatch and business resale non-dispatch), and the percentage out of service less than 24 hours (both business resale dispatch and business resale non-dispatch)).

behavior by making performance more unpredictable. For example, notwithstanding an average installation interval of five days, if the actual installation intervals vary widely from one to eight days, a CLEC will be very reluctant to promise installation in five or even six days, but is instead likely to quote the customer a delivery date closer to seven or eight days in order to minimize the likelihood of having to call the customer back and change the delivery date. If, on the other hand, there is relatively little variance, the CLEC can be expected to offer customers a delivery date closer to five days, and thereby be a more effective competitor.<sup>138</sup> In sum, BellSouth's statistical process control charts are simply not an appropriate way to determine whether discrimination is present.<sup>139</sup>

**2. BellSouth Has Attempted To Use Statistical Process Control To  
Immunize Itself From Claims Of Discrimination.**

76. Even if statistical process control could appropriately be applied in this situation, it is apparent that BellSouth has set the control limits used on its charts to conceal

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<sup>138</sup> By presenting only monthly average data for all CLECs in the aggregate, BellSouth's statistical process control charts also mask the variability of BellSouth's performance for individual CLECs. Looking only at aggregate monthly results has the potential of greatly understating the unpredictability of what individual CLECs experience, with a corresponding reduction in their competitiveness with BellSouth.

<sup>139</sup> See also *Florida PSC Order*, p. 183 ("we do not believe that BellSouth's Statistical Process Control is adequate to demonstrate nondiscrimination and parity, since the SPC is generally utilized in stable, controlled, single system manufacturing environments. . . . SPC has had limited application, if any, in the service sector. We agree with AT&T that the SPC is not adequate to compare two sets of performance data for discrimination").

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discriminatory behavior, not to reveal it. By setting its control limits very broadly, BellSouth has prepared its charts so that only the most flagrantly discriminatory behavior by BellSouth would ever fall outside the control limits. As noted above, BellSouth has established its upper and lower control limits using three standard deviations. This translates to the use of a 99.75 % confidence level, or a 99.75 % likelihood that BellSouth's performance for a particular month will fall within the control limits based on its past performance. This means that there is only a 0.25 % probability that BellSouth's performance would fall outside the control limits -- either above or below -- or only a 0.125 % probability that its performance would fall outside the particular control limit which represents worse performance. In other words, BellSouth has defined parity to include any performance falling within a range that includes virtually all the extremes of BellSouth's performance.<sup>140</sup> While this approach virtually eliminates the possibility that BellSouth might be falsely accused of discrimination, it also shields all but the most extreme instances of discrimination by BellSouth from scrutiny and leaves CLECs highly vulnerable to undetected discrimination in performance.<sup>141</sup>

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<sup>140</sup> See *Florida PSC Order*, p. 183 ("We do not believe the use of three [standard deviations] is sufficiently restrictive to detect discrimination").

<sup>141</sup> In the case of BellSouth's chart for the percentage of provisioning troubles within 30 days for residential resale service where a dispatch is required, BellSouth's process control methodology results in a control range extending all the way from 20.55 % to 92.67 %. See Stacy PM Aff., Ex. WNS-9, p. 21. This means that only a percentage of provisioning troubles within 30 days for CLECs in excess of 92.67 % would fall outside the control range

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77. BellSouth's approach also defines discrimination more narrowly than the standard generally followed by the federal courts in discrimination cases, where I understand a difference of two standard deviations is sufficient to establish a prima facie case of discrimination.<sup>142</sup> Indeed, the argument that the disparity between two groups must be at least three standard deviations from the mean before an inference of discrimination is appropriate has been specifically rejected in discrimination cases.<sup>143</sup>

78. Although Mr. Stacy states that "[i]t is widely accepted in numerous industries that stable processes operate within three standard deviations (+ or -) from the mean,"<sup>144</sup> that does not justify BellSouth's use here of three standard deviations from the mean as a standard for attempting to identify discrimination. Further, Mr. Stacy's support of this standard is belied by his recent proposal to the Georgia Public Service Commission that the

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<sup>141</sup> (...continued)  
defined by BellSouth even though BellSouth's average performance of 56.61% is over 35 percent lower.

<sup>142</sup> See, e.g., *Kendon v. AT&T Technologies*, 883 F.2d 388, 398 (5th Cir. 1989) (finding that differences in excess of "[t]wo standard deviations are also sufficient to establish liability [for discrimination]"); *Palmer v. Shultz*, 815 F.2d 84, 92 (D.C. Cir. 1989) (difference of 1.96 standard deviations sufficient).

<sup>143</sup> See *Kendon v. AT&T Technologies*, 883 F.2d 388, 397-98 (5th Cir. 1989) (rejecting claim that a disparity of three standard deviations is an appropriate minimum requirement for statistical significance in discrimination cases).

<sup>144</sup> Stacy PM Aff., ¶ 20.

control limits should be reduced in steps from three standards deviations for the first year down to two standard deviations for the second year, and finally down to one-half standard deviation in the third year.<sup>145</sup> This proposal implicitly admits that BellSouth should use much narrower control limits, but that it cannot achieve such a level of performance for CLECs at the present time.

79. Instead of its proposed "statistical process control" charts, BellSouth should be required to use a more appropriate and customary statistical test of discrimination to support its claim of nondiscrimination. Such a statistical test would directly compare BellSouth's average (or mean) performance for CLECs for the particular month with its average performance for its own retail operations for that same month, together with an assessment of performance variability.<sup>146</sup> For example, the California Public Utilities Commission recently approved a "parity" provision developed by the staff of the Commission, which has been incorporated into the AT&T-Pacific Bell Interconnection Agreement. That provision states that, for purposes of defining Pacific's contractual service quality obligations

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<sup>145</sup> See Stacy Direct Testimony, filed October 22, 1997, in *Performance Measurements for Telecommunications Interconnection, Unbundling and Resale*, Docket No. 7892-U (Ga. Pub. Serv. Comm'n), pp. 3-4 (Attachment 16).

<sup>146</sup> See, e.g., *Florida PSC Order*, p. 183 (finding that the use of "mean performance testing" and "performance variability testing" provides a "better" way to measure comparative performance for purposes of detecting discrimination than BellSouth's statistical process control charts).

to AT&T, "parity is achieved when Pacific's service performance [for AT&T], as defined by the designated comparable measures, is within 1.65 standard deviations (90% confidence level) of [Pacific's] average retail performance for the equivalent retail product or service."<sup>147</sup>

80. By similarly requiring a direct comparison of BellSouth's monthly behavior for CLECs with its monthly performance for its own retail operations, this Commission will be in a far better position to draw fact-based conclusions regarding whether or not the performance delivered to CLECs is equal to, or no worse than, that which BellSouth provides to itself. Such a direct monthly comparison of performance would use the same data that BellSouth uses for its process control charts, and thus would impose no additional burden on BellSouth. Moreover, by directly comparing performance data for the same month, the impact of seasonal differences or extraordinary events like hurricanes or blizzards should be reflected equally in the monthly performance data for all parties.

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<sup>147</sup> See AT&T-Pacific Interconnection Agreement, Att. 17, p. 2. While the use of 1.65 standard deviations produces a 90% probability (90% confidence level) that a result outside of the parity range (that is, either significantly better or significantly worse than the mean) is not a random occurrence, where -- as in this case -- the only relevant issue to be tested is whether performance for one group was significantly *worse* (which may be a higher or lower number depending on the measurement), the only results of interest are those that are both outside the parity range and worse (a "one-tailed" test). If only *worse* performance is pertinent, the use of 1.65 standard deviations corresponds to a 95% confidence level that a *worse* result outside the parity range is not a random occurrence. See *Palmer v. Shultz*, 815 F.2d 84, 92, 95-96 (D.C. Cir. 1989).

81. I am also concerned that the trigger proposed by BellSouth for investigating and remedying discrimination is grossly inadequate to provide parity or to protect competition. BellSouth has proposed that, unless its performance falls outside of its broad control limits, no action should be considered unless its performance for CLECs is worse than its performance for itself for three consecutive months, and even then only an undefined "investigation" or "study," described by BellSouth as a "root cause analysis," would be commenced by BellSouth.<sup>148</sup> This is a far cry from the "self-executing enforcement mechanisms" designed to ensure compliance with performance requirements that the Commission found to be in the public interest in its *Ameritech Michigan* decision.<sup>149</sup> Under BellSouth's proposal, CLECs would have no assurance of any remedy for inferior performance, and they would have no hope of any remedy prior to the conclusion of BellSouth's investigation.<sup>150</sup> Moreover, this approach would create an incentive for BellSouth

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<sup>148</sup> Stacy PM Aff., ¶ 23.

<sup>149</sup> See *Ameritech Michigan Order*, ¶ 394 ("We would be particularly interested in whether such performance monitoring includes appropriate, self-executing enforcement mechanisms that are sufficient to ensure compliance with the established performance standards").

<sup>150</sup> Although Mr. Stacy claims that "BellSouth is currently initiating a root cause analysis effort for those measurements where the [statistical process control] criteria was [sic] not met" (Stacy PM Aff., ¶ 41), AT&T has never been notified of any such investigation despite BellSouth's repeated assurances in state proceedings that any investigation would be a *joint* undertaking with the affected CLECs. See Stacy Direct Testimony, filed October 22, 1997, in *Performance Measurements for Telecommunications Interconnection, Unbundling and Resale*,  
(continued...)

to manage a pattern of "two bad months -- one good month" simply by shifting its resources, thereby both providing inferior service to CLECs and precluding any remedy.

**3. BellSouth's Statistical Process Control Charts Do Not Show Nondiscriminatory Performance For CLECs.**

82. Notwithstanding the self-serving assumptions on which BellSouth's statistical process control charts are based, those charts do not support BellSouth's claim that it is providing nondiscriminatory performance for CLECs. Quite the contrary, even applying the very narrow definition of discrimination advocated by BellSouth -- that is, average performance for all CLECs three standard deviations worse than the historical mean of BellSouth's average performance for itself -- in September (the most recent month for which data is provided), BellSouth's process control charts show *discriminatory* performance for CLECs for 5 of the 28 resale performance charts provided by BellSouth, including (1) the percentage of provisioning appointments met (residential resale non-dispatch), (2) the percentage of provisioning appointments met (business resale non-dispatch), (3) the percentage of maintenance appointments met (business resale dispatch), (4) percentage of maintenance

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<sup>150</sup> (...continued)

Docket No. 7892-U (Ga. Pub. Serv. Comm'n), p. 4 (Attachment 16).

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repeat troubles within 30 days (residential resale non-dispatch), and (5) the percentage of provisioning troubles within 30 days (business resale non-dispatch).<sup>151</sup>

83. Six of BellSouth's 28 charts also show discriminatory performance for CLECs based on the alternative test of discrimination proposed by BellSouth -- poorer performance for CLECs relative to BellSouth's performance for itself for three or more consecutive months.<sup>152</sup> Those charts include (1) the percentage of provisioning appointments met (residential resale non-dispatch (both worse and out of the control limits for all 8 months)), (2) the percentage of provisioning appointments met (business resale non-dispatch (last 4 months)), (3) the percentage of maintenance appointments met (business resale dispatch (last 7 months)), (4) the percentage of maintenance repeat troubles within 30 days (residential resale non-dispatch (7 out of 8 months, including 4 outside control limits)); (5) trouble report rate (residential resale dispatch (all 8 months)), and (6) the percentage of provisioning troubles within 30 days (business resale non-dispatch (last 5 months, including 3 well outside control limits)).<sup>153</sup>

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<sup>151</sup> Stacy PM Aff., Ex. WNS-9, pp. 2, 4, 7, 14, 24. Similarly, BellSouth's statistical process control charts further show 8 of the 28 resale measures outside the control limits in June, 4 outside in July, and 6 outside in August.

<sup>152</sup> See Stacy PM Aff., ¶ 23.

<sup>153</sup> Stacy PM Aff., Ex. WNS-9, pp. 2, 4, 7, 14, 17, 24.

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84. Indeed, for five of the 28 charts, including several of the most critical measures, BellSouth's performance for CLECs has been so bad that even its year-to-date average performance for CLECs falls outside of BellSouth's control limits.<sup>154</sup>

85. BellSouth cannot simply dismiss these poor performance results for CLECs as statistically "minimal."<sup>155</sup> The whole purpose of statistical process control is to identify statistically significant deviations from expected process performance that require action on the part of management. If BellSouth does not contend that its statistical process control charts identify differences in performance that are statistically significant, those charts have no relevance to this case.

86. Nor can the poor performance for CLECs identified on BellSouth's statistical process control charts be dismissed as insignificant to competition. For example, based on BellSouth's data on order volumes, the category "residential resale non-dispatch" accounted for 69 percent of CLEC order volume and 83 percent of BellSouth's order

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<sup>154</sup> See Stacy PM Aff., Ex. WNS-9, pp. 2, 4, 6, 14, 24 (percentage of provisioning appointments met (residential resale non-dispatch), percentage of provisioning appointments met (business resale non-dispatch), percentage of maintenance appointments met (residential resale non-dispatch), percentage of maintenance repeat troubles within 30 days (residential resale non-dispatch), and percentage of provisioning troubles within 30 days (business resale non-dispatch)).

<sup>155</sup> Stacy PM Aff., ¶ 41.

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volume.<sup>156</sup> Yet BellSouth's statistical process control charts show that its average year-to-date performance for this category was outside of BellSouth's broad control limits for 3 out of the 7 resale measures provided by BellSouth, and that its percentage of provisioning appointments met for CLECs has been below the lower control limit for every single one of the seven months included on BellSouth's charts.<sup>157</sup> Nor has BellSouth's performance for CLECs shown any improvement. Indeed, its performance in provisioning CLEC orders in September was so bad -- a full *93 standard deviations* below BellSouth's mean performance for its own retail operations -- that it quite literally fell clear off the chart.<sup>158</sup> Even BellSouth was forced to admit in its South Carolina filing that this data shows "significantly" poorer performance for CLECs.<sup>159</sup>

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<sup>156</sup> See Stacy PM Aff., Ex. WNS-11, pp. 17-20 (August data).

<sup>157</sup> See Stacy PM Aff., Ex. WNS-9, pp. 2, 6, 14.

<sup>158</sup> Stacy PM Aff., Ex. WNS-9, p. 2. Likewise, BellSouth's September performance in provisioning CLEC business orders not requiring a dispatch was so bad that it fell off of BellSouth's chart. See *id.*, p. 4 (performance for CLECs 8 standard deviations below BellSouth's mean performance for its own retail operations).

<sup>159</sup> Stacy S.C. PM Aff., ¶ 51. Although Mr. Stacy attempted to dismiss those results as the product of "CLEC caused errors," he provided no factual basis whatsoever for that assertion. Furthermore, BellSouth's provisioning appointments met measure is based on BellSouth's committed due dates, not the due dates requested by the CLEC, and BellSouth does not assign the due date until after it has accepted the CLEC's order as "a good LSR" and a service order has been issued to its Service Order Control System. See Stacy PM Aff., Ex. WNS-3, p. 2.

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87. In sum, notwithstanding the manner in which BellSouth's statistical process control charts have been set up to shield virtually any discrimination against CLECs from detection, BellSouth's statistical process control charts actually establish that BellSouth is *not* delivering nondiscriminatory performance to CLECs.

**B. BellSouth's Performance Measurements Are Inappropriate Insofar As They Are Reported Only As A Percentage Within Some Target Interval.**

88. BellSouth's performance measurements are also inadequate to establish parity insofar as BellSouth reports only a percentage within some target level of performance (or, conversely, the percentage exceeding a target) rather than its average level of performance both for CLECs and for itself. While meeting a target level of performance can provide "useful information" in some situations,<sup>160</sup> the Commission made clear in its *Ameritech Michigan Order* that such measurements do not provide sufficient information to determine whether discrimination is present because reporting only the frequency that a target was, or was not, achieved, fails to disclose the actual levels of the company's performance for the groups being compared and can thus conceal substantial performance disparities.<sup>161</sup>

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<sup>160</sup> *Ameritech Michigan Order*, ¶ 168. For example, such measurements can be used to monitor whether the performance of a single company is improving over time, or for assessing whether or not one party is achieving performance requirements established in a contract or by a regulatory agency.

<sup>161</sup> See, e.g., *Ameritech Michigan Order*, ¶ 166 (quoting Department of Justice example to show that such measures "can mask discriminatory behavior"), ¶ 168 (rejecting data on due  
(continued...)

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89. Despite the Commission's clearly expressed preference for performance data directly comparing the BOC's average performance for CLECs with its average performance for its own local retail operations, BellSouth continues to report some data solely on a percentage within target format rather than providing a direct comparison of its actual performance for CLECs and itself. For example, rather than reporting its average answer time for CLECs and itself, BellSouth proposes to report only the percentage of calls answered within 30 seconds.<sup>162</sup> This measure would mask an obvious failure to provide parity of performance if BellSouth's Local Carrier Service Centers answer calls from CLECs in 25-30 seconds, while BellSouth's retail representatives answer calls from BellSouth's own retail customers within 5 seconds. Similarly, the timeliness of providing firm order confirmations, order rejections, and order completion notices should be reported for parity purposes as an average time, not as a percentage provided within some target number of minutes or hours.<sup>163</sup>

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<sup>161</sup> (...continued)

dates missed and orders not completed within 6 days as insufficient to show nondiscrimination on the ground that "such measurements do not, in and of themselves, demonstrate that [the BOC] is providing equivalent access to OSS functions"), ¶ 211 n.542 ("performance measures in the form of intervals met . . . can mask discrimination within the target interval"), ¶ 234.

<sup>162</sup> See Stacy PM Aff., Ex. WNS-3, p. 4. BellSouth may be planning to abandon this approach. Compare Stacy PM Aff., Ex. WNS-10 with Stacy S.C. PM Aff., Exs. WNS-2 & WNS-3 (replacing "% Calls Answered in 30 Sec." with "Avg. Answer Time" in its reports for local interconnection trunking and unbundled loops).

<sup>163</sup> See, e.g., *Bell Atlantic/NYNEX Order*, App. D, Measures 1 (average response time per (continued...))

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In light of its disregard of the Commission's prior decisions on this issue, the Commission should reiterate that measures expressed on a percentage within target (or percentage exceeding target) basis should be avoided for purposes of parity reporting in favor of measures of the BOC's actual mean performance for CLECs and its own retail operations.<sup>164</sup>

**C. BellSouth Has Not Provided Adequate Information To Show That Its Performance Data Is Reliable.**

90. BellSouth has also failed to provide information sufficient to permit others to rely on its performance data with any assurance that it accurately represents what it purports to represent. In the first place, it is essential that each measurement presented by BellSouth be clearly defined, documented, and not subject to unilateral redefinition by BellSouth.<sup>165</sup> What is included and what is excluded in collecting the data must not be subject to ambiguity or unilateral modification by BellSouth, but must be clearly fixed, for the numerical value of a measure can be significantly altered by selective inclusion or exclusion.

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<sup>163</sup> (...continued)

pre-ordering transaction), 3 (average response time for order confirmation), 4 (average response time for order rejection), 6 (average response time for order completion notification).

<sup>164</sup> There is also no need for BellSouth to report its performance on a "percentage within target" basis, because if BellSouth has the data to report the percentage within target, it should also have the data to report its actual performance.

<sup>165</sup> See *Ameritech Michigan Order*, ¶ 212 (BOC must "ensure that its performance measurements are clearly defined"), ¶ 209 (BOC cannot rely upon performance measurements that are not "clearly explained" so as to make them "meaningful to [the Commission] and commenting parties").